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REFIGERATOR DOOR WITH RECEPTACLE CONTAINERS REMOVABLY ARRANGED ON THE INSIDE THEREOF BETWEEN PROJECTING VERTICAL PILLARS

[Kühlschranktür mit auf deren Innenseite zwischen vorspringenden senkrechten Holmen abnehmbar angeordneten Aufnahmebehältern]

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The invention pertains to a refrigerator door with trough-like receptacle containers for goods requiring refrigeration that are removably arranged on the inside thereof between projecting vertical pillars, wherein the interior of said receptacle containers can be variably partitioned by means of molded parts for insertion therein that can be suspended on the edge of the receptacle container with a laterally projecting angle bracket.

In refrigerator doors, it is common practice to provide the inside with compartments in order to gain additional storage space for goods requiring refrigeration. In order to utilize the receptacle containers that serve as compartments more effectively, it is known to variably partition these receptacle containers with molded parts for insertion therein. In this case, it is attempted to design the interior of the receptacle container in a versatile and easily variable fashion such that goods placed therein, such as bottles of /2* different sizes, tubes or the like, are still held reliably when the refrigerator door is jerkily opened and closed.

Most of the solutions proposed for solving this problem do not fulfill the pertinent requirements because they either do not provide sufficient optional variations with respect to the storage of different sizes of goods requiring refrigeration and therefore also hold these goods insufficiently, or their manufacture is associated with high expenditures.

DE-GM 88 02 494 discloses a refrigerator door, the inside of which is equipped with trough-like door compartments, into which receptacles in the form of molded parts can be inserted in order to partition their interior. These receptacles are provided with an angle bracket that makes it possible to suspend the receptacles on the opening edge of the door compartments. The angle brackets of the receptacles that are suspended on the opening edge of the door compartments and protrude over this opening edge not only interfere with an appealing appearance of the inside of the refrigerator door, but may also be struck

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* [Numbers in right margin indicate pagination of the original text.]

when the refrigerator door is open, particularly when storing goods requiring refrigeration. This may cause the molded part to separate from its anchoring on the opening edge of the door compartment and to fall down or be subjected to a lateral jerking movement together with the goods stored therein. Consequently, the molded part may collide with an adjacent molded part or other goods requiring refrigeration such that the goods requiring refrigeration and the molded parts may become mixed up or even damaged.

The invention is based on the objective of improving the partition of the interior space of receptacle containers in a refrigerator door of the initially cited type with simple molded parts that can be easily handled and reliably attached. /3

According to the invention, this objective is attained in that the receptacle container is provided with a groove that extends along its upper edge and serves as the guide, wherein a limb that protrudes downward from the angle bracket of the molded part can engage into said groove.

Receptacle containers with molded parts arranged therein in accordance with the invention not only have an appealing appearance, but also provide the advantage of not featuring any parts that protrude beyond their outside contour, wherein the special type of suspension in the receptacle container ensures that the molded parts are reliably guided and supported therein without additional measures.

According to one advantageous embodiment of the object of the invention, the groove extends over the upper rear edge of the receptacle container that is assigned to the inside of the refrigerator door.

This arrangement of the guide in the form of a groove on the receptacle container is not only particularly inconspicuous, but also largely protected against soiling and damage.

According to another preferred embodiment of the object of the invention, the edge of the receptacle container is reinforced in the region of the groove.

In a receptacle container with these characteristics, the groove that serves as a guide and a support /4
for the limb of the molded part engaging therein has a particularly high dimensional stability and resistance to bending.

The molded part for a receptacle container can be utilized in a particularly versatile fashion if the molded part is divided into several compartments that are open on the upper side in accordance with another preferred embodiment of the object of the invention.

The invention is described below with reference to one embodiment that is schematically illustrated in the enclosed figures. The figures show:

Figure 1, a perspective representation of a refrigerator door with receptacle containers for goods requiring refrigeration arranged on the inside thereof, wherein the lower receptacle container is realized in the form of a bottle compartment with molded parts inserted therein;

Figure 2, a top view of the receptacle container arranged on the bottom of the door and molded parts arranged therein enlarged in comparison with Figure 1;

Figure 3, a section through the receptacle container with a molded part inserted therein, along the line III-III in Figure 2, and

Figure 4, a representation corresponding to that shown in Figure 3, whereby the section extends /5
along the line IV-IV in Figure 2.

A schematically illustrated refrigerator door that is conventionally equipped with a magnetic seal 11 on its inner edge is identified by the reference symbol 10 in Figure 1 and features projecting vertical pillars 13 on its inside 12 in the vicinity of edges. An additional pillar 14 is arranged approximately centered between the pillars 13 in the upper half of the refrigerator door 10 and together with the pillars 13 makes it possible to attach narrower containers. Another removable, trough-like receptacle container 20 that serves as a bottle compartment is arranged on the lower edge region of the refrigerator door 10,

wherein the width of this bottle compartment corresponds to the distance between the two pillars 13. The interior 21 of the receptacle container 20 is partitioned with molded parts 22 inserted therein, wherein said molded parts are equipped with a laterally projecting angle bracket 23 (see Figure 3 and Figure 4) and can be suspended on the edge of the receptacle container 20 that faces the inside of the door as described below.

Figure 2, in particular, shows that either different or identical molded parts 22 can be selectively inserted into the receptacle containers 20. The molded parts 22 are guided by means of a groove 25 that extends on the upper edge 24 of the receptacle container 20 approximately up to the region of the side walls 26 of the receptacle container 20. A limb 27 protrudes downward from the angle bracket 23 of the molded part 22 and displaceably engages in the groove 25 that extends over the rear upper edge 24 of /6
the receptacle container 20 assigned to the inside of the refrigerator door 10, wherein the height of the limb 27 approximately corresponds to the depth of the groove 25 (in this respect, see Figure 3 and Figure 4).

Figure 3 and Figure 4 show that the outside contours of the molded parts 22 are realized such that they are spaced apart from the end face 28 situated opposite the groove 25, as well as from the bottom 29 of the receptacle container 20. In the embodiment shown, one of the molded parts 22 that can be inserted into the receptacle container 20 is partitioned into compartments 30 that are open on its upper side (see Figure 3) while the other molded part 22 features a blade 31 that lies in a plane extending perpendicular to its limb 27 (in this respect, see Figure 4).

In order to store goods requiring refrigeration that have different outside contours such as bottles, tubes, medicine bottles or the like, the interior 21 of the receptacle containers 20 can be partitioned into a storage space that corresponds to the corresponding goods requiring refrigeration by suspending molded parts 22 therein. The molded parts 22 inserted into the receptacle container 20 are supported in

the groove 25 with their downwardly protruding limb 27 and on the wall with the groove 25 with their body surfaces assigned to this wall. Such a support of the molded parts 22 results in a storage space for the stored goods requiring refrigeration that protects these goods from falling over and/or falling out, particularly when the refrigerator door 10 is opened and closed.

Claims /1*

1. A refrigerator door with trough-like receptacle containers for goods requiring refrigeration that are removably arranged on the inside thereof between projecting vertical pillars, wherein the interior of said receptacle containers can be variably partitioned by means of molded parts to be inserted therein that can be suspended on the edge of the receptacle container with a laterally projecting angle bracket, characterized by the fact that the receptacle container (20) is provided with a groove (25) that extends on its upper edge (24) and serves as a guide, wherein a limb (27) that protrudes downward from the angle bracket (23) of the molded part (22) can displaceably engage in said groove.

2. The refrigerator door according to Claim 1, characterized by the fact that the groove (25) extends over the rear upper edge (24) of the receptacle container (20) that is assigned to the inside (12) of the refrigerator door (10).

3. The refrigerator door according to Claim 1, characterized by the fact that the edge of the receptacle container (20) is reinforced in the region of the groove (25).

4. The refrigerator door according to one of the preceding claims, characterized by the fact that the molded part (22) is partitioned into several compartments (30) that are open on the upper side.

* [Numbers start over with page 1 in claims.]

FIG.1

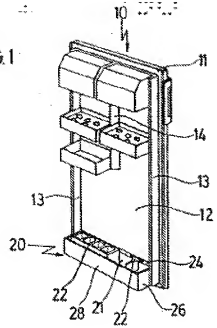

FIG.2

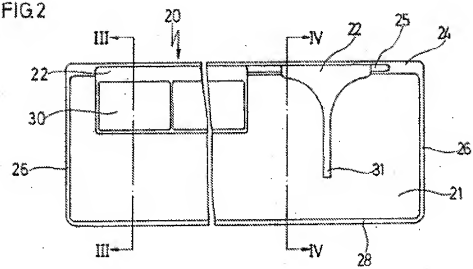

FIG.3

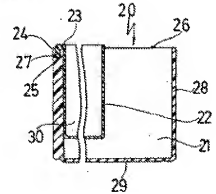

FIG.4